



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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February 13, 2006

Ms. Loretta Lehrman
USEPA Region 5
77 West Jackson Blvd.
Chicago, IL 60604-3507

Subject: Year 2005 WI Air Mon. Network Review

Dear Ms. Lehrman:

On December 14, 2005 representatives of the Wisconsin Air Program held a telephone conference call with you and members of your staff to review and discuss proposed changes for Wisconsin's ambient air monitoring network for the Year 2006. A major factor affecting proposed changes to Wisconsin's air monitoring network during this review were significant budget cuts in the Federal 105 funding source used to support the air monitoring network. These cuts required Wisconsin to assess the priority of specific monitoring stations to determine where reductions could be achieved to meet budget constraints. The resultant network design will not compromise our ability to meet the objectives of providing timely air quality data to declare health advisories and determine the attainment status of the NAAQS in Wisconsin.

A Public Informational meeting was held at Wisconsin DNR offices in Madison, WI on January 13, 2006 seeking input from the public and other interested parties concerning the proposed changes for Wisconsin's air monitoring network agreed upon with Region 5 USEPA staff at the December 14, 2005 teleconference. In addition, the proposed changes to Wisconsin's monitoring network for 2006 were discussed with the Bureau of Air Management's Air Management Team (AMT) at a recent monthly teleconference call. As a result of comments received from the public and the AMT, Wisconsin is proposing the following changes to the network design discussed with you on December 14:

1. Propose installation of a continuous PM_{2.5} monitor in Madison at the East High School ozone monitoring station (AQS # 55-025-0041) at 2199 Pennsylvania Ave. during the spring of 2006. On December 20, 2005 USEPA issued a press release proposing the lowering of the 24-hour PM_{2.5} NAAQS from 65ug/m³ to 35ug/m³. Analysis of FRM PM_{2.5} data measured in Madison over the past 3 years predicts a design value of 35 ug/m³ for the proposed 24-hour PM_{2.5} NAAQS in Madison. Over 30 written comments from Madison residents have been received supporting installation of a continuous PM_{2.5} monitor in Madison to provide posting of timely PM_{2.5} data on the Department's website and AIRNOW to notify citizens in Wisconsin's second most populous urban area of periods when ambient PM_{2.5} concentrations are at or above air advisory levels. One of Wisconsin's collocated continuous PM_{2.5} FDMS TEOMs will be relocated to the East High School ozone station in Madison during the spring of 2006 to provide measurement of continuous PM_{2.5} in Madison, WI.

2. Propose permanent shutdown of the ozone, carbon monoxide and meteorological station in Milwaukee at 7528 W. Appleton Ave. (AQS # 55-079-0044). This station is being completely shutdown due to 105 budget cuts. USEPA Region 5 had already given approval to discontinue CO monitoring at this station and was aware the entire station may need to be shutdown in order to meet the budget. There are other ozone monitoring stations nearby in Milwaukee. The meteorological station is being relocated to another station in this vicinity to provide Met. data for another monitoring study being performed there. Two additional ozone stations in the Milwaukee area and one in northern WI may also need to be shutdown before April 2006 if sufficient funding is not identified to maintain operation of those three sites. Those three sites, UWM in Milwaukee (AQS # 55-079-0041), Grafton (AQS # 55-089-0008) and Popple River near Florence, WI (AQS # 55-037-0001) are listed in Table IV attached to this letter.
3. Propose complete shutdown of two stations established to measure PMCoarse (PM10-PM2.5) in Wisconsin at Waupaca (AQS # 55-135-0004) and at the Younker's site in Green Bay (AQS # 55-009-0009). The proposed PMCoarse standards released by USEPA in December 2005 are unlikely to be exceeded at any Wisconsin sites based on the data collected at the Waupaca and Green Bay sites since 2004. These two stations were shutdown as a budget saving measure.
4. Propose shutdown of the visibility monitoring station in Milwaukee at the Bay View Terrace Condominium site at 2525 South Shore Drive on June 30, 2006. This visibility station (annual cost = \$20K) has been funded through the USEPA 103 fine particulate grant in past years. Due to reductions in 103 fine particulate grant funds for the state fiscal year beginning on July 1, 2006, Wisconsin must shutdown operation of this visibility station in order to maintain operation of critical FRM, continuous PM2.5 and PM2.5 Pre-cursor gas monitoring stations throughout Wisconsin. The collocated Mid-West haze camera at this site will continue to operate since it is funded by the Lake Michigan Air Directors Consortium (LADCO).

Wisconsin requests formal approval from Region 5 USEPA to implement the following proposed modifications (including those discussed above) to Wisconsin's ambient air monitoring network for the Year 2006. Efficiencies and cost savings resulting from these changes will help provide the resources necessary to maintain operation of higher priority air monitoring activities including continuous measurement of fine particulates, high priority ozone monitoring stations, visibility (at the Mayville site), regional haze, air toxics and timely submittal of continuous PM2.5 and ozone data to AIRNOW.

The proposed changes agreed to for Wisconsin's air monitoring network are as follows by pollutant:

- **TSP (Total Suspended Particulate) Monitoring Sites.** Wisconsin will be shutting down all remaining TSP monitoring stations operated by the Wisconsin Department of Natural Resources (WDNR) to meet demands of 105 budget cuts. TSP stations operated and funded by Industrial and Municipal Agencies required by air permit will continue to operate (a table identifying those stations is attached). The following WDNR TSP stations will be permanently shutdown:
 1. Superior site at 700 Water Street (AQS # 55-031-0025).
 2. Green Bay Younker's site at 1300 N. Quincy Street (AQS # 55-009-0009).
 3. Waupaca site at E3520 Hwys 22&54 (AQS # 55-135-0004).
 4. Boulder Junction site at Trout Lake Nursery, County Road M (AQS # 55-125-0001).
- **PM10 Monitoring Sites.** The following WDNR PM10 stations will be permanently shutdown:
 1. Milwaukee site at 600 E. Greenfield Avenue (AQS # 55-079-0064).
 2. Superior site at 700 Water Street (AQS # 55-031-0025).
 3. Green Bay Younker's site at 1300 N. Quincy Street (AQS # 55-009-0009).
 4. Waupaca site at E3520 Hwys 22&54 (AQS # 55-135-0004).
 5. Boulder Junction site at Trout Lake Nursery, County Road M (AQS # 55-125-0001).
- **FRM PM2.5 Sites.** The following WDNR FRM PM2.5 stations will be permanently shutdown:
 1. Green Bay Younker's site at 1300 N. Quincy Street (AQS # 55-009-0009).
 2. Waupaca site at E3520 Hwys 22&54 (AQS # 55-135-0004).

The following proposed changes are being made to Wisconsin's PM2.5 Continuous and PM2.5 Speciation network of sites:

- **Continuous PM2.5 Sites**
 1. Addition of Continuous PM2.5 sampler to the Madison East High School ozone station at 2199 Pennsylvania Avenue during the spring of 2006 (AQS # 55-025-0041).
 2. Removal of Continuous PM2.5 collocated sampler from Mayville site in spring of 2006.
- **PM2.5 Speciation Sites**
 1. Shutdown of PM2.5 Speciation sampling at Chiwaukee Prairie Nature Preserve site (AQS # 55-059-0019) on January 1, 2006.

Proposed changes to Wisconsin's continuous gaseous pollutant monitoring stations are as follows:

- **Ozone Monitoring Sites**

1. Shutdown the Milwaukee O3 site at 7528 West Appleton Avenue (AQS # 55-079-0044).
2. Shutdown the Waukesha Carroll College O3 site at 225 North Grand Avenue due to demolition of the site building (AQS # 55-133-0017).
3. Three O3 sites: UWM in Milwaukee (AQS # 55-079-0041), Grafton (AQS # 55-089-0008) and Popple River near Florence, WI (AQS # 55-037-0001) may need to be shutdown before April 2006 if funding source (s) necessary to operate them are not identified by April 2006.

- **Carbon Monoxide Sites**

1. Shutdown the Milwaukee CO site at 7528 West Appleton Avenue (AQS # 55-079-0044).
2. Add high-sensitivity CO monitor to the Mayville National Air Toxics Trend Station (NATTS) supersite for Pre-Cursor PM2.5 monitoring in the spring of 2006 (AQS # 55-027-0007).

- **Sulfur Dioxide Sites**

1. Add high-sensitivity SO2 monitor to the Mayville National Air Toxics Trend Station (NATTS) supersite for Pre-Cursor PM2.5 monitoring in the spring of 2006 (AQS # 55-027-0007).

- **Oxides of Nitrogen Sites**

1. Shutdown the Harrington Beach NOX monitor near Belgium on 531 Hwy. D (AQS # 55-089-0009).
2. Add high-sensitivity NOX/Noy monitor to the Mayville National Air Toxics Trend Station (NATTS) supersite for Pre-Cursor PM2.5 monitoring in the spring of 2006 (AQS # 55-027-0007).

- **PAMS & TOXICS Sites**

Wisconsin's PAMS and Urban Air Toxics Monitoring (UATM) monitoring plans for the Year 2006 are described as follows:

TABLE 1. Site-Parameter Listing for the Wisconsin's PAMS Network								
Site	AQS ID	Type	O3	NOx	NOy	Met	VOC	Carb.
Milwaukee-SE Hdqs	550790026	2	X	Xs	X	X	AutoGC	X
Harrington Beach	550890009	3	X			X		
Manitowoc	550710002	4	X	Xs	X	X		

Xs – High sensitivity NOx

AutoGC data provides hourly concentrations during June, July, and August.

Toxic Air Contaminates

Air Toxics Monitoring is conducted to obtain information on ambient concentrations of volatile organic compounds (VOCs), semi-volatile organic compounds, and non-volatile metals that are hazardous to human health. This program incorporates six monitoring stations located throughout Wisconsin. A summary of the site is found in Table 2 of this memorandum. While most of the UATM monitoring is conducted in urban areas, Wisconsin's program does include some monitoring at remote locations to establish background concentrations of selected pollutants.

Table 2: Wisconsin's Toxic Air Monitoring Sites						
Location	AQS ID	PCBs	VOCs	Carbonyls	Metals	Other
Madison, E.H.(1)	550250041		X	X	X (as TSP)	
Mayville	550270007		X	X	X (as PM10)	NH3 (2)
Milwaukee, S.S.	550790010	X	X	X	X (as TSP)	
Crandon (Potawatomi)	550410007				X (as TSP)	

(1) The Madison site restarted operations in September 2004. This site is part of the Regional Air Toxics network. Samples are analyzed at ERG.

(2) Ammonia monitoring is conducted on coated denuders. Analysis is conducted at the ISWS.

The attached tables describe Wisconsin's entire air monitoring network as proposed for 2006 and changes to Wisconsin's air monitoring network which occurred in 2005. We await your approval of these changes to allow their implementation to provide for an efficient and effective ambient air monitoring network in Wisconsin. If you have any questions concerning the above please contact either myself at (608) 253-4506 or Ms. Eileen Pierce at (608) 266-1058.

Yours truly,

Bruce Rodger
Air Monitoring Field Operations Team Leader

cc: Eileen Pierce – AM/7
Edward M. Miller - SER